

To FCC Commissioners

As a concerned citizen and licensed Amateur radio operator living in the Manassas

Virginia area, I wish to register my most strong objection to the consideration

at hand regarding the deployment of Access BPL under Docket 04-37.

While it is admirable that the FCC commissioners wish to extend broadband access

to all parts of the country, the technology currently being considered under Access BPL has a very strong potential for interference. Living in the Manassas,

Virginia area, where Access BPL testing is in progress, I have monitored first

hand the interference caused by Access BPL systems, and I feel I must point out

shortcomings in the commission's reasoning as to the potential interference issues.

Issue one, which was not discussed in 04-37, is that of propagated Access PBL

interference, i.e. interference generated by Access BPL systems in the 3 to 30 MHz

frequency bands that, by virtue of Ionospheric Propagation, it transmitted over

greater than normal distances. While 04-37 states that any interference generated

by Access BPL will be a point source interference, which would typically be expected

to diminish as distance from the source is increased (line-of-site propagation),

these point source emissions, even at reduced power levels of below 1 watt ERP,

could easily reach the Ionosphere, and during times of increased solar (sunspot)

activity, just as easily be propagated over distances of hundreds and quite possibly

thousands of miles. In this event, and at such a time as thousands or tens of

thousands of Access BPL installations have been completed, significant Access BPL

interference could be received by licensed users in the 3 to 30 MHz frequency band

in distant parts of the United States, and even in foreign countries. This could

easily lead to the aggregate interference referred to by the ARRL and others in 04-37.

Issue two, again not discussed in 04-37, is the precise mechanism the commission sees

occurring when a licensed station encounters interference produced by an Access BPL

installation. By this I mean; what specific process or procedures would occur when a

licensed station encounters such interference; how would that licensed station contact

the offending Access BPL installation? Obviously the commission must have

considered
this issue, as they refer often to the interference mitigation the Access
BPL
installation would need to do in order to comply with Part 15
"non-interference" rules.
How exactly will an Access BPL installation know when they are interfering
with a
licensed station so that they have implement these mitigation procedures,
whether they
be a change of operating frequency or band, or a complete shut down of the
offending
system. The offending Access BPL system will not know it is interfering
with a
licensed station unless the station being interfered with has a process to
notify the
offending Access BPL system. And if there is the potential for this Access
BPL
interference to travel great distances, as discussed in Issue one above, how
is the
licensed station that is being interfered with to know which Access BPL
installation
is the one causing the interference? It could be a local Access BPL
installation, or
it could potentially be an Access BPL installation that is hundreds or even
thousands of miles away.

Issue three, also not discussed in 04-37, is precisely how an Access BPL
system which
is causing interference is to automatically adjust it's transmission to
mitigate that
interference? At any one time there may be hundreds or thousands of
licensed (or
unlicensed general public receiving) stations listening on bands that can be
interfered
with by Access BPL. A licensed, technically proficient receiving station
may be able
to recognize the interference as Access BPL interference, but how is a
lay-person,
with no technical electronic expertise, attempting to receive a broadcast
transmission
supposed to do so? And if a receiving station, whether licensed or lay, is
being
interfered with by Access BPL, how can that interfering Access PBL station
"automatically" make the necessary mitigation?

Issue four, only mildly touched upon in 04-37, is the potential of severe
degradation
of the Access BPL signals to their intended recipients by outside signals
from
legally licensed transmissions. Preliminary tests available from the ARRL
and/or AMRAD
to the commission show that a radio transmission of 100 watts ERP on the 7
MHz band from
a distance of 30 feet completely shut down a local test Access BPL
installation. The
equipment was so severely affected that the Access BPL was unable to process
data

transmissions for several minutes after the external transmission was shut down. With many thousands of mobile and portable licensed stations from various groups and agencies operation in the 3 to 30 MHz frequency bands, the potential for random and wide spread significant interference, interference which the Access BPL stations operating under Part 15 must accept, seems obvious. Consumers purchasing Access BPL from the electric power companies will undoubtedly not accept a poor level of operation that would almost certainly result, and a significant and severe consumer backlash would almost certainly ensue...a backlash that would most probably be directed at the group which authorized the Access BPL initially...namely the FCC.

In conclusion, while it would be "nirvana" if every home could get broadband via BPL, there are much more efficient and higher speed transmission media that have a zero potential for interference available to distribute Internet access. These methods are tried and true, and require no amount of testing to validate their ability to perform successfully. The FCC should bring pressure to bear on the existing communication utilities like telephone and cable to increase their footprint of availability. Every home that has a phone line has the potential for some type of existing broadband. If their distance from the CO (Central Office) is greater than DSL, in one of its various flavors, can accommodate, then other broadband options like Frame Relay or Fractional T1 is available. And in many rural areas, local entrepreneurs are putting in place wireless Internet systems, similar in premise to MATV systems for television. If the communications industry can spend the money necessary to place cell phone towers coast-to-coast and virtually every place in between, then the capitalist system should push them to place wireless Internet access systems on the same RF infrastructure. There are many other ways to provide Internet access that are better use of technology than Access BPL.

Thank you
William B. South